

Appendix B  
Preliminary CHART Assessment for the  
Northern California (NC) *O. mykiss* ESU

**ESU Description**

The NC *O. mykiss* ESU was listed as a threatened species in 2000 (65 FR 36074; June 7, 2000). The ESU includes all naturally spawned populations of *O. mykiss* in coastal river basins from Redwood Creek south to and including the Gualala River. Major watersheds occupied by naturally spawning fish in this ESU include Redwood Creek, Mad River, Eel River, several smaller coastal watersheds on coast southward to the Gualala River. *O. mykiss* within this ESU include both winter and summer run types, including what is presently considered to be the southernmost population of summer *O. mykiss* in the Middle Fork Eel River (NMFS 1996). The half-pounder life history also occur in the ESU, specifically in the Mad and Eel Rivers. Based on an updated status review (NMFS 2003a) and an assessment of hatchery populations located within the range of the ESU (NMFS 2003b), NMFS recently proposed that the ESU remain listed as a threatened species and that resident *O. mykiss* co-occurring with anadromous populations below impassible barriers (both natural and man-made) as well as two artificial propagation programs (Yager Creek Hatchery and North Fork Gualala River Hatchery) also be included in the ESU (69 FR 33102; June 14, 2004). A Technical Recovery Team has been formed and is in the process of identifying the historical and extant independent population structure of this ESU and associated population viability.

**CHART Area Assessments**

The CHART assessment for the NC *O. mykiss* ESU addressed 7 CALWATER Hydrologic Units (HUs) or subbasins containing 50 occupied Hydrologic Subareas (HSAs) (Figures B1 and B2). The HSAs were chosen as freshwater critical habitat units because they present a convenient and systematic way to organize the CHART's watershed assessments for this ESU. In addition to the 50 occupied HSA watershed units, conservation assessments were also made for Humboldt Bay and the Eel River estuary. Information presented below for individual HUs (size, counties, total stream miles, occupied stream miles, and habitat use) were generated from GIS data sets compiled by NMFS Southwest Region (NMFS 2004a).

#### Unit 1. Redwood Creek Subbasin (HU 1107)

The Redwood Creek HU is located in the northern portion of the ESU and includes the Redwood Creek drainage. The HU encompasses approximately 294 mi<sup>2</sup> and occurs completely within Humboldt County. The HU contains 3 HSAs, all of which are occupied, and 343 stream miles (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 138 miles of occupied riverine and/or estuarine habitat in the 3 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine/estuarine reaches for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B1 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 2. Trinidad Subbasin (HU 1108)

The Trinidad HU is located in the northern portion of the ESU and includes Big Lagoon and Little River. The HU encompasses approximately 131 mi<sup>2</sup> and occurs completely within Humboldt County. This HU contains 2 HSAs, both of which are occupied, and 161 stream miles (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 66 miles of occupied riverine/estuarine habitat in the occupied HSAs (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine and estuarine reaches identified for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B1 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 3. Mad River Subbasin (HU1109)

The Mad River HU is located in the northern portion of the ESU and includes the Mad River drainage. The HU encompasses approximately 499 mi<sup>2</sup> and occurs in portions of Humboldt and Trinity Counties. This HU contains 4 HSAs, all of which are occupied,

and a total of 661 miles of streams (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 169 miles of occupied riverine/estuarine habitat in the 4 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine and estuarine reaches identified for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B3 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 4. Eureka Plain Subbasin (HU 1110)

The Eureka Plain HU is located in the vicinity of Eureka, includes Humboldt Bay. The HU encompasses approximately 224 mi<sup>2</sup> and occurs completely within Humboldt County. This HU contains a single HSA which is occupied and a total of 269 miles of streams (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 122 miles of occupied riverine/estuarine habitat in the occupied HSA (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs. The CHART also evaluated Humboldt Bay into which most of the freshwater streams in this subbasin drain as a separate unit. Humboldt Bay contains approximately 25 mi<sup>2</sup> of estuarine habitat which the CHART found contained PCEs for rearing and migration and was of high conservation value. Table B1 summarizes the total miles of occupied riverine and estuarine habitat for the HSA that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B4 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 5. Eel River Subbasin (HU 1111)

The Eel River HU is located in north central portion of the ESU and includes the Eel River and Van Duzen River drainages. The HU encompasses approximately 3,682 mi<sup>2</sup> and occurs in portions of several counties including: Humboldt, Trinity, Mendocino, Lake, Glenn, Colusa, and Tehama. This HU, which is the largest in this ESU, contains

19 occupied HSAs and 5,194 miles of streams (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 1,269 miles of occupied riverine/estuarine habitat in the occupied HSAs (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine and estuarine reaches identified for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B5 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 6. Cape Mendocino Subbasin (HU 1112)

The Cape Mendocino HU is located in the central portion of the ESU and includes the Bear River and Mattole River drainages. This HU encompasses approximately 499 mi<sup>2</sup> and occurs almost entirely in Humboldt County. This HU contains 3 HSAs, all of which are occupied, and 654 miles of streams (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 342 miles of occupied riverine/estuarine habitat in the 3 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine and/or estuarine reaches identified for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B6 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

#### Unit 7. Mendocino Coast Subbasin (HU 1112)

The Mendocino HU is located in the southern portion of the ESU within Mendocino and Sonoma Counties and includes several smaller streams including the Ten Mile, Noyo, Albion, Navarro, and Garcia Rivers. This HU which encompasses approximately 1,598 mi<sup>2</sup> contains 18 HSAs, all of which are occupied, and 2,103 miles of streams (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS

biologists identify approximately 1,022 miles of occupied riverine/estuarine habitat in the 18 HSAs (NMFS 2004a). The CHART concluded that these occupied areas contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs. Table B1 summarizes the total miles of occupied riverine and estuarine reaches identified for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map B7 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied habitat in this subbasin that may be essential for the conservation of the ESU.

### **CHART Preliminary Conservation Value Rating**

#### *Freshwater/Estuarine Areas*

After reviewing the best available scientific data regarding the distribution and habitat use of the NC O. mykiss ESU, the CHART concluded that most of the occupied HSAs were of high or medium conservation value to the ESU. Of the 50 occupied HSAs that were evaluated, 27 were rated as having high conservation value, 14 were rated as having medium conservation value, and 9 were rated as having low conservation value. In addition, both Humboldt Bay and the Eel River estuary were rated as having a high conservation value. Table B2 summarizes the CHARTs PCE/watershed scores and preliminary conservation value ratings (i.e. low, medium or high) for each HSA. Figure B8 depicts the overall spatial distribution of conservation scores for occupied HSAs within the ESU.

#### *Marine Areas*

NMFS determined that marine areas did not warrant consideration as critical habitat for this ESU.

### **References and Sources of Information**

NMFS 1996. Status Review of West Coast Steelhead. Biological Review Team; Northwest Fisheries Science Center and Southwest Fisheries Science Center.

NMFS 2003a. Updated Status of Federally Listed ESUs of West Coast Salmon and Steelhead. West Coast Salmon Biological Review Team; Northwest Fisheries Science Center and Southwest Fisheries Science Center. July 2003.

NMFS 2003b. Hatchery Broodstock Summaries and Assessments for Chum, Coho, and Chinook Salmon and Steelhead Stocks within ESUs listed under the ESA. Salmon and

Steelhead Hatchery Assessment Group/NOAA Fisheries; Northwest Fisheries Science Center and Southwest Fisheries Science Center

NMFS 2004. GIS and Associated Data Related to Critical Habitat Designations for Seven ESUs of Salmon and *O. mykiss* in California. Compiled by NMFS Southwest Region.

**Federal Register Notices**

65 FR 36974 - Northern California Steelhead Listing Determination

69 FR 33102 - Proposed Listing Determinations for 27 West Coast Salmon and Steelhead ESUs

Table B1. Summary of Occupied Subbasins/Watersheds, PCE's, and Management Activities Affecting PCE's for the Northern California Steelhead ESU

| Map Code | Basin           | Watershed                | Calwater Unit | Spawning/Rearing PCEs (mi)** | Rearing/Migration PCEs (mi)** | Presence/Migration Only PCEs (mi)** | Management Activities*** |
|----------|-----------------|--------------------------|---------------|------------------------------|-------------------------------|-------------------------------------|--------------------------|
|          | Redwood Creek   | Orick                    | 110710        | 62                           | 62                            | 59                                  | FR, FC, GM, WI, GR       |
|          | Redwood Creek   | Beaver                   | 110720        | 44                           | 44                            | 44                                  | FR                       |
|          | Redwood Creek   | Lake Prairie             | 110730        | 27                           | 27                            | 27                                  | FR, WI                   |
|          | Trinidad        | Big Lagoon               | 110810        | 32                           | 32                            | 30                                  | FR, NW                   |
|          | Trinidad        | Little River             | 110820        | 21                           | 21                            | 21                                  | FR, AG, GR, WI, NW, FC   |
|          | Mad River       | Blue Lake                | 110910        | 35                           | 35                            | 33                                  | FR, RB, AG, SC           |
|          | Mad River       | North Fork Mad River     | 110920        | 16                           | 16                            | 16                                  | FR, AG, GR, WI           |
|          | Mad River       | Butler Valley            | 110930        | 75                           | 75                            | 74                                  | FR, AG, GR, SC           |
|          | Mad River       | Ruth                     | 110940        | 9                            | 9                             | 9                                   | FR, NH                   |
|          | Eureka Plain    | Eureka Plain             | 111000        | 116                          | 116                           | 116                                 | UR, FC, RB, TR           |
|          | Eel River       | Ferndale                 | 111111        | 45                           | 45                            | 45                                  | AG, FC, GM               |
|          | Eel River       | Scotia                   | 111112        | 41                           | 41                            | 41                                  | GM, FR, ES               |
|          | Eel River       | Larabee Creek            | 111113        | 43                           | 44                            | 44                                  | AG, FR, WI               |
|          | Eel River       | Hydesville               | 111121        | 29                           | 29                            | 27                                  | FR, GM, ES, WI           |
|          | Eel River       | Bridgeville              | 111122        | 77                           | 77                            | 70                                  | FR, ES                   |
|          | Eel River       | Yager Creek              | 111123        | 38                           | 38                            | 38                                  | FR, AG, GR, ES           |
|          | Eel River       | Weolt                    | 111131        | 70                           | 70                            | 70                                  | FR, ES, WI               |
|          | Eel River       | Benbow                   | 111132        | 215                          | 215                           | 214                                 | FR, UR, ES, WI           |
|          | Eel River       | Laytonville              | 111133        | 79                           | 79                            | 79                                  | FR, UR, ES, NW           |
|          | Eel River       | Sequola                  | 111141        | 57                           | 57                            | 57                                  | FR, UR, NH               |
|          | Eel River       | Spy Rock                 | 111142        | 85                           | 85                            | 85                                  | AG, FR, ES, NH           |
|          | Eel River       | North Fork Eel River     | 111150        | 79                           | 79                            | 74                                  | AG, GR, WI, ES, PO       |
|          | Eel River       | Outlet Creek             | 111161        | 76                           | 77                            | 74                                  | UR, FR, WI, NW           |
|          | Eel River       | Tomki Creek              | 111162        | 87                           | 87                            | 85                                  | FR, WI, NW               |
|          | Eel River       | Lake Pillsbury           | 111163        | 25                           | 25                            | 25                                  | ES, NH, NW               |
|          | Eel River       | Eden Valley              | 111171        | 34                           | 53                            | 53                                  | FR, GR, WI               |
|          | Eel River       | Round Valley             | 111172        | 32                           | 34                            | 30                                  | AG, FR, WI               |
|          | Eel River       | Black Butte River        | 111173        | 31                           | 31                            | 31                                  | FR, GR, WI               |
|          | Eel River       | Wilderness               | 111174        | 30                           | 30                            | 30                                  | FR, PO                   |
|          | Cape Mendocino  | Oli Creek                | 111210        | 13                           | 13                            | 12                                  | GR, FR                   |
|          | Cape Mendocino  | Capetown                 | 111220        | 68                           | 68                            | 67                                  | AG, GR, FR, WI           |
|          | Cape Mendocino  | Mattole River            | 111230        | 260                          | 260                           | 254                                 | FR, AG, GR, WI           |
|          | Mendocino Coast | Usal Creek               | 111311        | 24                           | 24                            | 23                                  | FR, RB                   |
|          | Mendocino Coast | Wages Creek              | 111312        | 37                           | 37                            | 33                                  | FR, RB, NW               |
|          | Mendocino Coast | Ten Mile Creek           | 111313        | 100                          | 92                            | 92                                  | FR, GR, PO               |
|          | Mendocino Coast | Noyo River               | 111320        | 118                          | 117                           | 112                                 | FR, UR, NW               |
|          | Mendocino Coast | Big River                | 111330        | 159                          | 159                           | 150                                 | FR, PO, WL               |
|          | Mendocino Coast | Albion River             | 111340        | 56                           | 56                            | 53                                  | FR, UR, NW               |
|          | Mendocino Coast | Navarro River            | 111350        | 177                          | 178                           | 173                                 | FR, AG, WI               |
|          | Mendocino Coast | Greenwood Creek          | 111361        | 5                            | 5                             | 5                                   | FR                       |
|          | Mendocino Coast | Elk Creek                | 111362        | 7                            | 7                             | 7                                   | FR                       |
|          | Mendocino Coast | Alder Creek              | 111363        | 7                            | 7                             | 7                                   | FR, GR                   |
|          | Mendocino Coast | Brush Creek              | 111364        | 13                           | 13                            | 13                                  | FR, AG                   |
|          | Mendocino Coast | Garcia River             | 111370        | 74                           | 74                            | 72                                  | FR, AG, WI               |
|          | Mendocino Coast | North Fork Gualala River | 111381        | 32                           | 32                            | 25                                  | FR, RB, NW               |
|          | Mendocino Coast | Rockpile Creek           | 111382        | 10                           | 10                            | 10                                  | FR, RB                   |
|          | Mendocino Coast | Buckeye Creek            | 111383        | 26                           | 26                            | 26                                  | FR, AG                   |
|          | Mendocino Coast | Wheatfield Fork          | 111384        | 71                           | 71                            | 71                                  | FR, AG                   |
|          | Mendocino Coast | Gualala                  | 111385        | 67                           | 67                            | 61                                  | GM, GR, RB               |
|          | Mendocino Coast | Russian Gulch            | 111390        | 4                            | 4                             | 4                                   | GR                       |

\*Total Stream Miles calculated from blue line streams represented on 1:100,000 USGS Topographic Maps

\*\*Overlap of stream miles may occur between the three habitat types.

\*\*\*Management Activities Codes:

|                                |   |
|--------------------------------|---|
| AG - Agriculture               | NW - Non-agriculture Withdrawals / Impoundments |
| GM - Channel Modification      | PO - Poaching                                   |
| ES - Exotic / Invasive Species | RB - Road Building / Maintenance                |
| FC - Flood Control Channel     | SP - Septic System Failure / Containment        |
| FR - Forestry                  | TR - River, Estuary, Ocean Traffic              |
| GM - Sand and Gravel Mining    | UR - Urbanization                               |
| GR - Grazing                   | WI - Agriculture Withdrawals / Impoundments     |
| HD - Hydroelectric Dam         | WL - Wetland Loss / Removal                     |
| NH - Non-hydro Dam             |   |

**Table B2. Summary of Preliminary Scores and Overall Rankings of Conservation Values for Critical Habitat for HSA watersheds occupied by the Northern California Steelhead ESU**

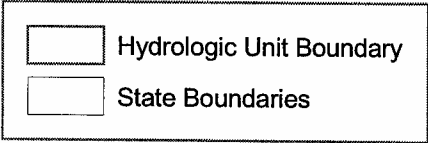
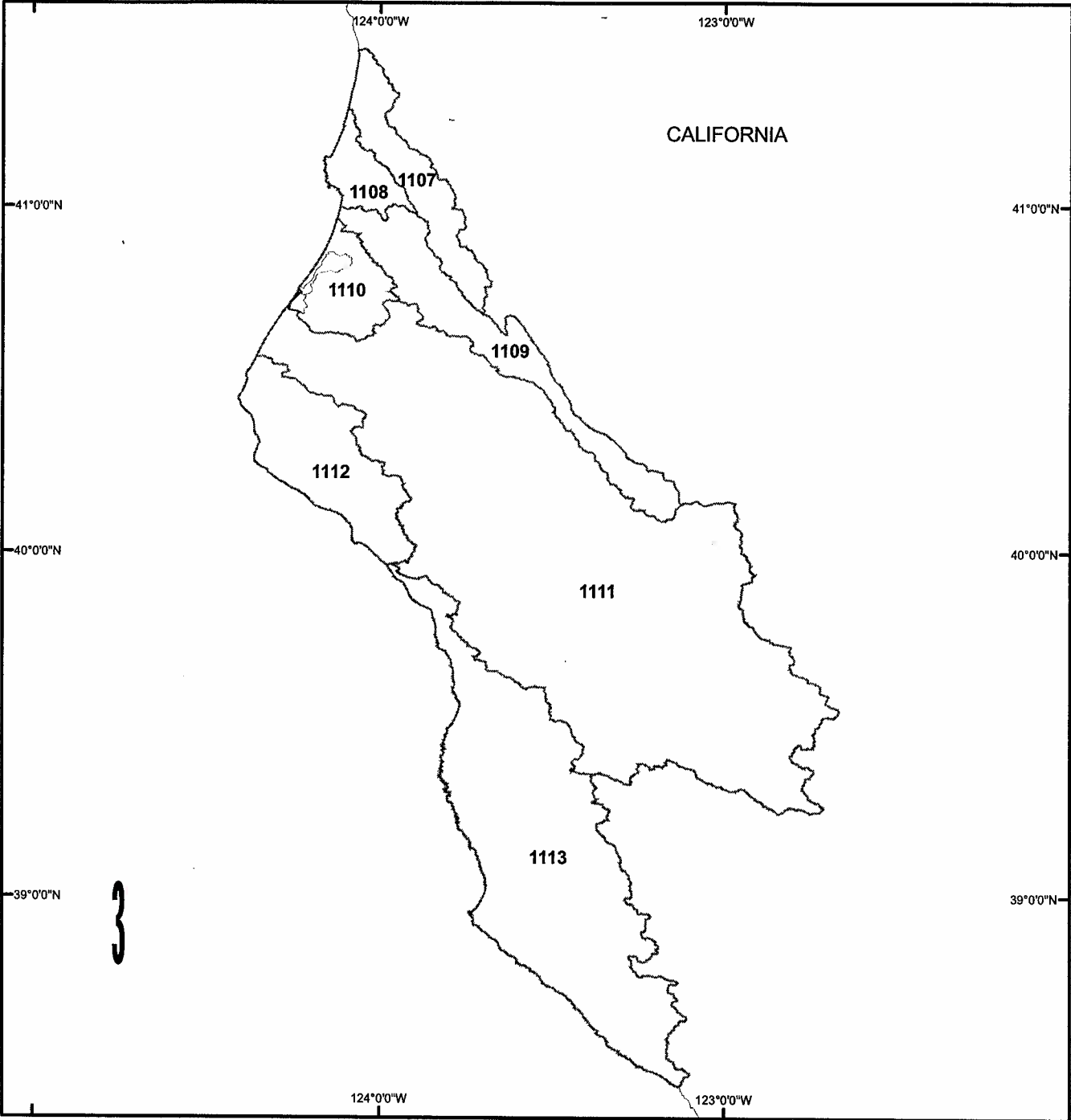
| Map Code | Basin           | Watershed            | Calwater Unit | Total Score (0-18) | Comments / Other Considerations | Preliminary Conservation Value |
|----------|-----------------|----------------------|---------------|--------------------|---------------------------------|--------------------------------|
|          | Redwood Creek   | Orick                | 110710        | 13                 |                                 | High                           |
|          | Redwood Creek   | Baeaver              | 110720        | 13                 |                                 | High                           |
|          | Redwood Creek   | Lake Prairie         | 110730        | 12                 |                                 | Medium                         |
|          | Trinidad        | Big Lagoon           | 110810        | 10                 |                                 | Low                            |
|          | Trinidad        | Little River         | 110820        | 13                 |                                 | High                           |
|          | Mad River       | Blue Lake            | 110910        | 13                 |                                 | High                           |
|          | Mad River       | North Fork Mad River | 110920        | 14                 |                                 | High                           |
|          | Mad River       | Butler Valley        | 110930        | 12                 |                                 | High                           |
|          | Mad River       | Ruth                 | 110940        | 10                 |                                 | Low                            |
|          | Eureka Plain    | Eureka Plain         | 111000        | 14                 |                                 | High                           |
|          | Eel River       | Ferndale             | 111111        | 11                 |                                 | Medium                         |
|          | Eel River       | Scotia               | 111112        | 12                 |                                 | Medium                         |
|          | Eel River       | Larabee Creek        | 111113        | 14                 |                                 | High                           |
|          | Eel River       | Hydesville           | 111121        | 13                 |                                 | High                           |
|          | Eel River       | Bridgeville          | 111122        | 12                 |                                 | Medium                         |
|          | Eel River       | Yager Creek          | 111123        | 11                 |                                 | Medium                         |
|          | Eel River       | Weott                | 111131        | 13                 |                                 | High                           |
|          | Eel River       | Benbow               | 111132        | 14                 |                                 | High                           |
|          | Eel River       | Laytonville          | 111133        | 14                 |                                 | High                           |
|          | Eel River       | Sequoia              | 111141        | 12                 |                                 | Medium                         |
|          | Eel River       | Spy Rock             | 111142        | 11                 |                                 | Medium                         |
|          | Eel River       | North Fork Eel River | 111150        | 11                 |                                 | Medium                         |
|          | Eel River       | Outlet Creek         | 111161        | 13                 |                                 | High                           |
|          | Eel River       | Tomki Creek          | 111162        | 13                 |                                 | High                           |
|          | Eel River       | Lake Pillsbury       | 111163        | 12                 |                                 | Medium                         |
|          | Eel River       | Eden Valley          | 111171        | 12                 |                                 | High                           |
|          | Eel River       | Round Valley         | 111172        | 11                 |                                 | Medium                         |
|          | Eel River       | Black Butte River    | 111173        | 12                 |                                 | High                           |
|          | Eel River       | Wilderness           | 111174        | 14                 |                                 | High                           |
|          | Cape Mendocino  | Oil Creek            | 111210        | 10                 |                                 | Low                            |
|          | Cape Mendocino  | Capetown             | 111220        | 10                 |                                 | Low                            |
|          | Cape Mendocino  | Mattole River        | 111230        | 14                 |                                 | High                           |
|          | Mendocino Coast | Usal Creek           | 111311        | 11                 |                                 | Medium                         |
|          | Mendocino Coast | Wages Creek          | 111312        | 11                 |                                 | Medium                         |
|          | Mendocino Coast | Ten Mile Creek       | 111313        | 13                 |                                 | High                           |
|          | Mendocino Coast | Noyo River           | 111320        | 13                 |                                 | High                           |
|          | Mendocino Coast | Big River            | 111330        | 13                 |                                 | High                           |
|          | Mendocino Coast | Albion River         | 111340        | 12                 |                                 | Medium                         |



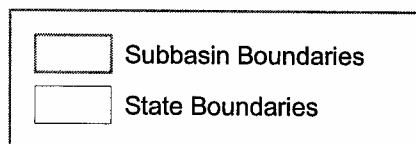
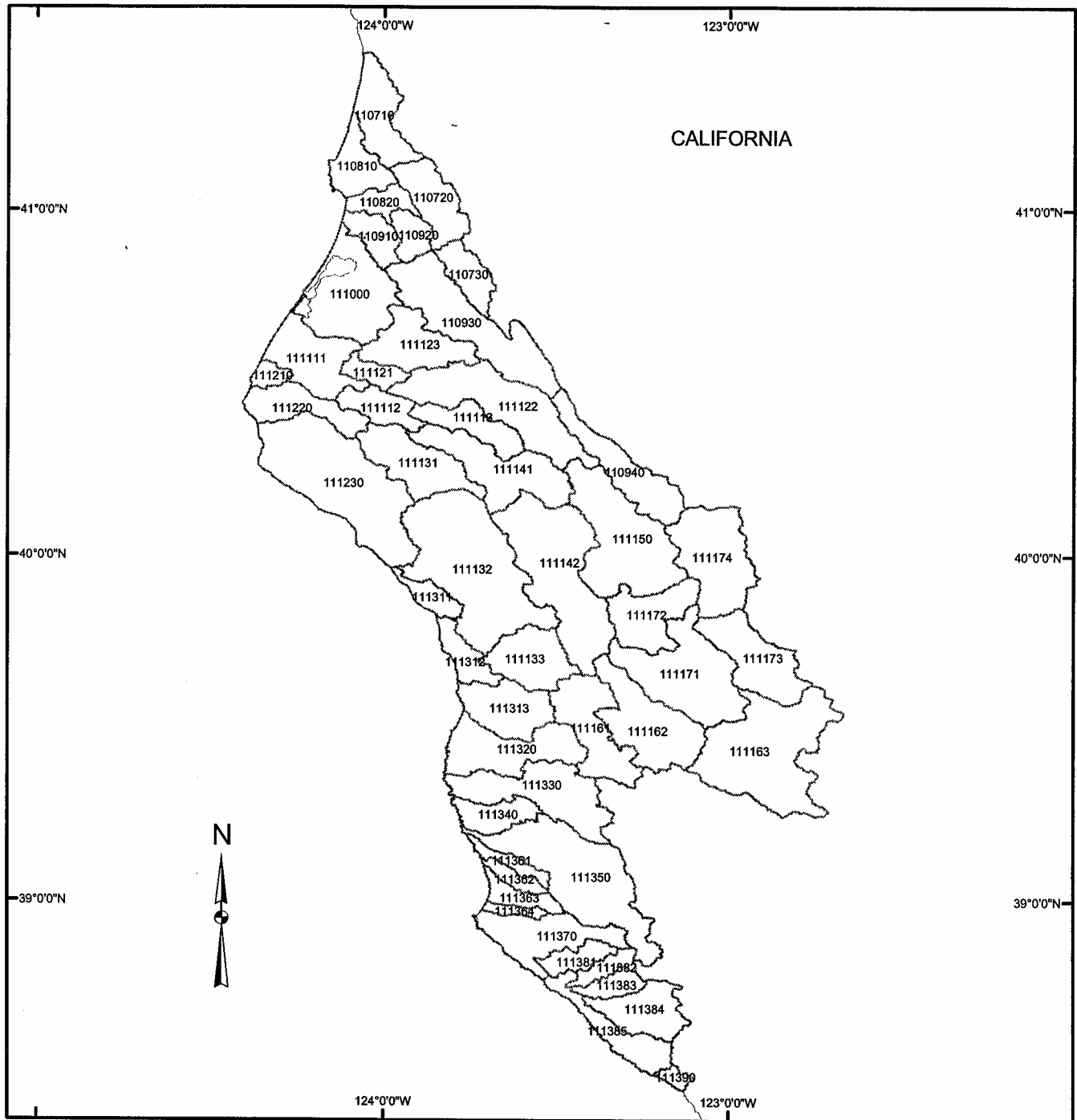
|                 |                          |        |    |   |        |
|-----------------|--------------------------|--------|----|---|--------|
| Mendocino Coast | Navarro River            | 111350 | 14 | - | High   |
| Mendocino Coast | Greenwood Creek          | 111361 | 10 |   | Low    |
| Mendocino Coast | Elk Creek                | 111362 | 10 |   | Medium |
| Mendocino Coast | Alder Creek              | 111363 | 9  |   | Low    |
| Mendocino Coast | Brush Creek              | 111364 | 10 |   | Low    |
| Mendocino Coast | Garcia River             | 111370 | 13 |   | High   |
| Mendocino Coast | North Fork Gualala River | 111381 | 13 |   | High   |
| Mendocino Coast | Rockpile Creek           | 111382 | 10 |   | Low    |
| Mendocino Coast | Buckeye Creek            | 111383 | 12 |   | High   |
| Mendocino Coast | Wheatfield Fork          | 111384 | 13 |   | High   |
| Mendocino Coast | Gualala                  | 111385 | 13 |   | High   |
| Mendocino Coast | Russian Gulch            | 111390 | 7  |   | Low    |
| Outside ESU     | Lake Pillsbury           | 111163 |    |   | High   |

Figures B1 and B2: CALWATER Hydrologic Units and Hydrologic Subareas within the Range of the NC *O. mykiss* ESU.

Map of the Northern California O. mykiss ESU



# Map of the Northern California O. Mykiss ESU



Maps B1 through B7: Northern California O. mykiss ESU - Areas (Units) Under  
Consideration for Critical Habitat Designation

B1 - Unit 1107 (Redwood Creek)

B2 - Unit 1108 (Trinidad)

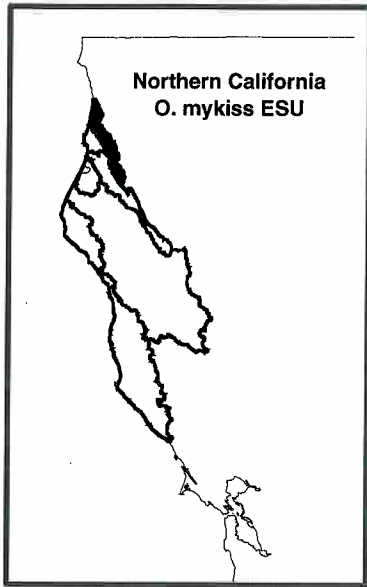
B3 - Unit 1109 (Mad River)

B4 - Unit 1110 (Eureka Plain)

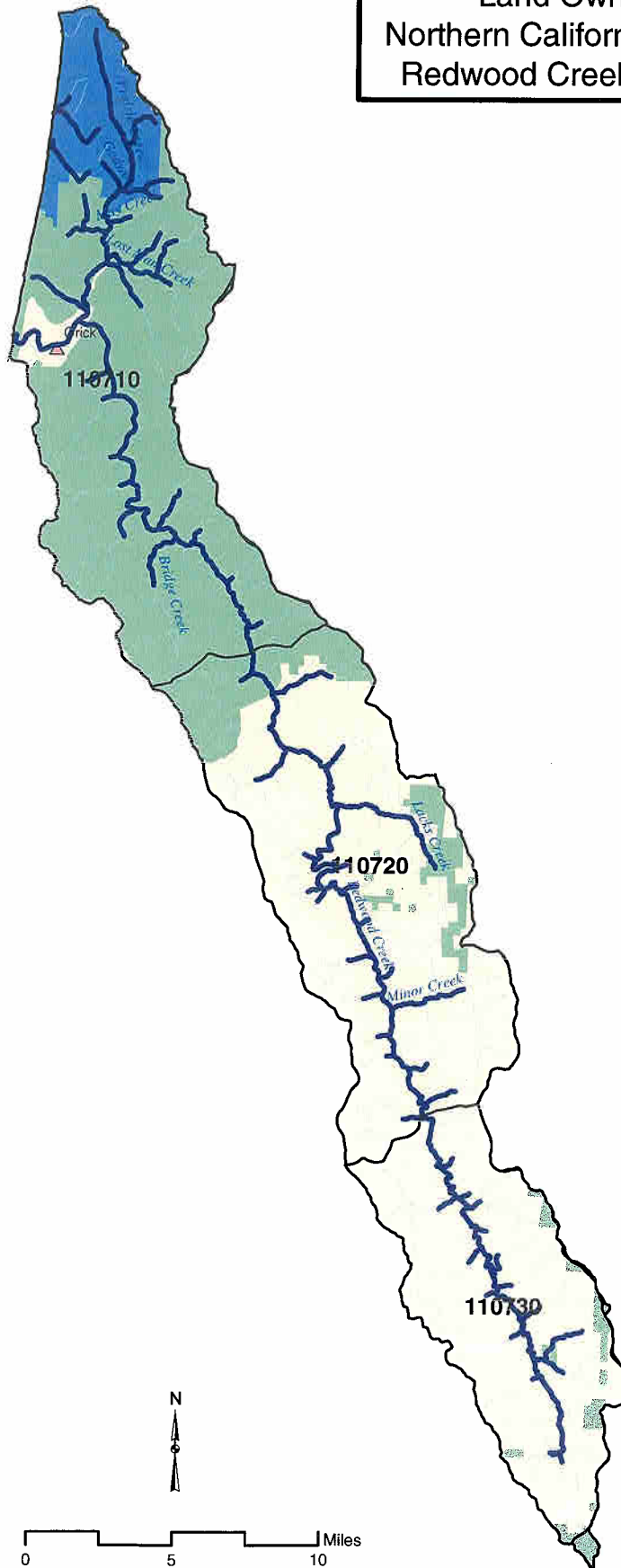
B5 - Unit 1111 (Eel River)

B6 - Unit 1112 (Cape Mendocino)

B7 - Unit 1113 (Mendocino Coast)

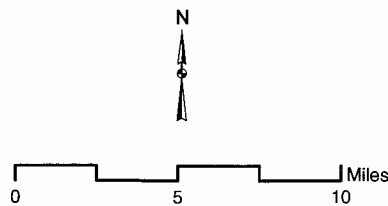


**DRAFT**  
**Land Ownership**  
 Northern California O. mykiss  
 Redwood Creek HU (1107)

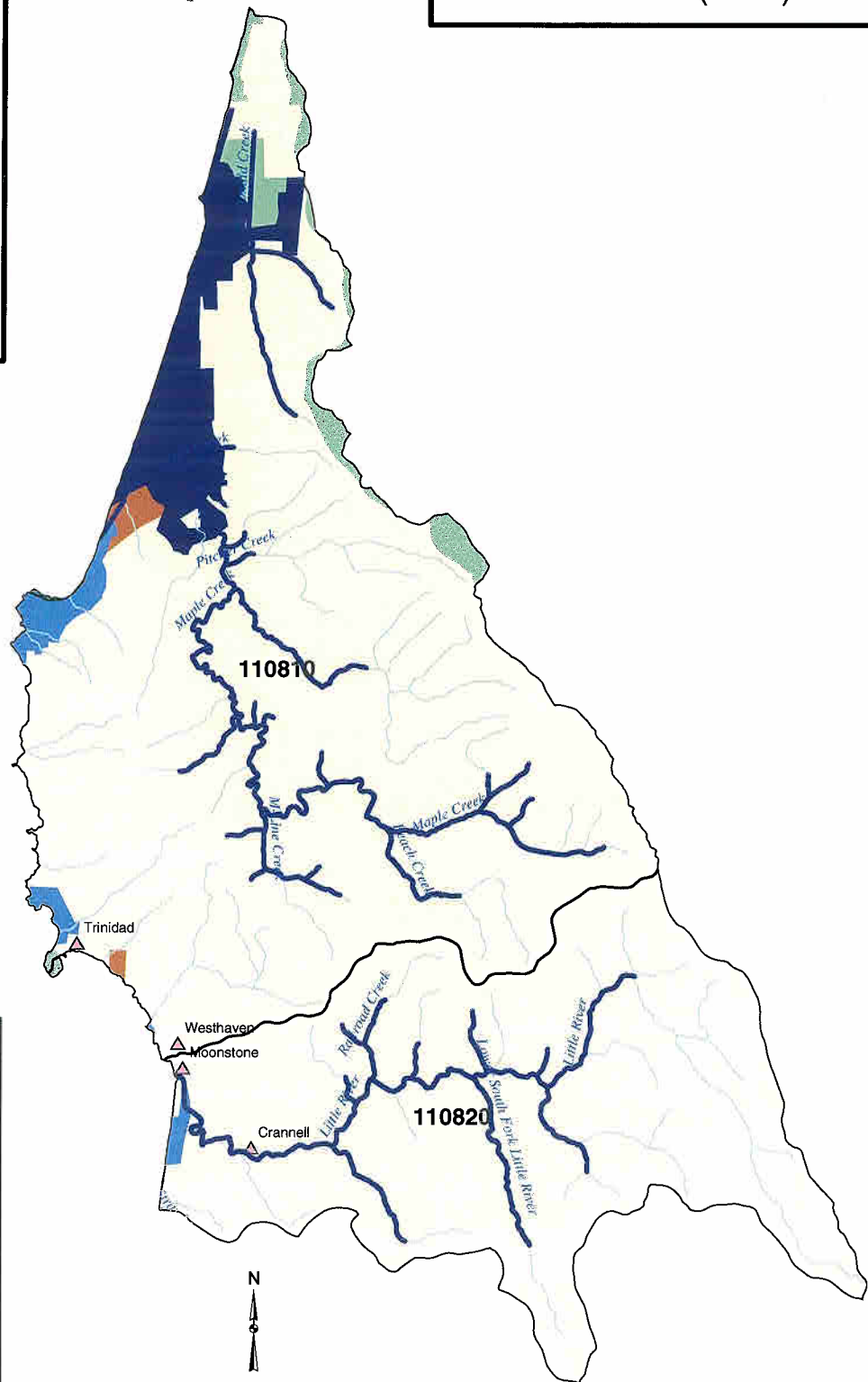
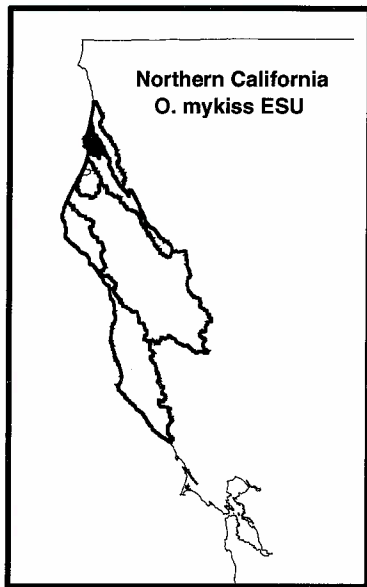






- △ Cities
  - O. mykiss Presence
  - Streams
  - Hydrologic Unit Boundary
  - Land Ownership\***
  - Tribal
  - Federal
  - State/Local
  - Private/Other
  - Water
- \*Source: California Environmental Resources Evaluation System (CERES), 1999

Note: This map is a DRAFT product for general reference only



DRAFT  
Land Ownership  
Northern California O. mykiss  
Trinidad HU (1108)



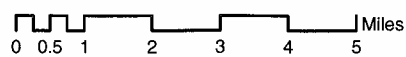
 Cities  
 O. mykiss Presence  
 Streams  
 Hydrologic Unit Boundary

### Land Ownership\*

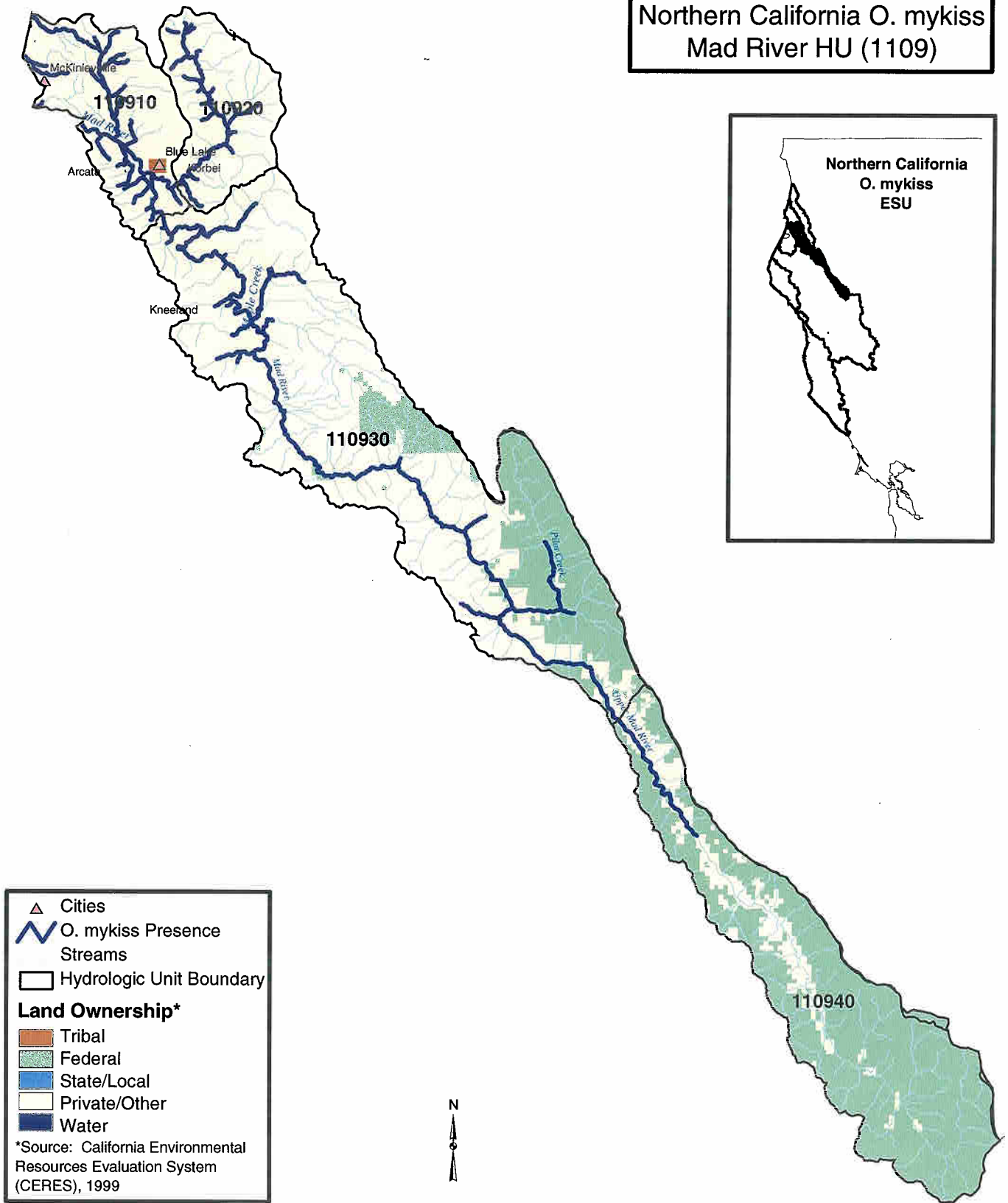
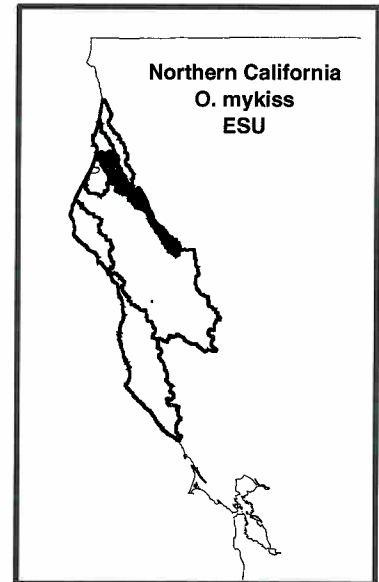
-  Tribal  
 Federal  
 State/Local  
 Private/Other  
 Water

\*Source: California Environmental Resources Evaluation System (CERES), 1999

Note: This map is a DRAFT product for general reference only



**DRAFT**  
**Land Ownership**  
**Northern California O. mykiss**  
**Mad River HU (1109)**

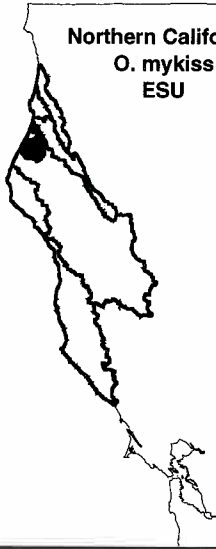


Note: This map is a DRAFT  
product for general reference only

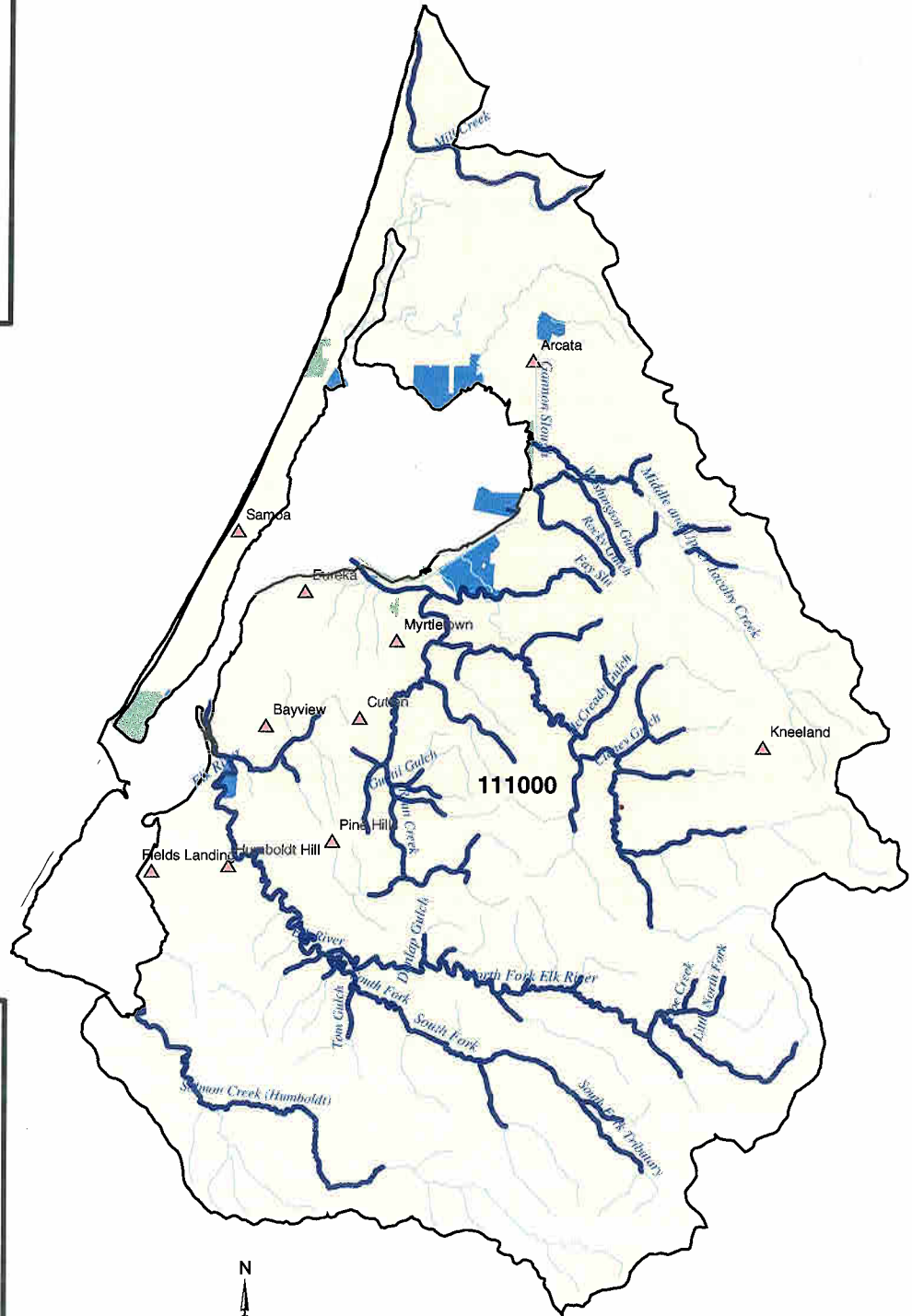
0 2.5 5 10 Miles



Northern California  
O. mykiss  
ESU



**DRAFT**  
**Land Ownership**  
**Northern California O. mykiss**  
**Eureka Plain HU (1110)**



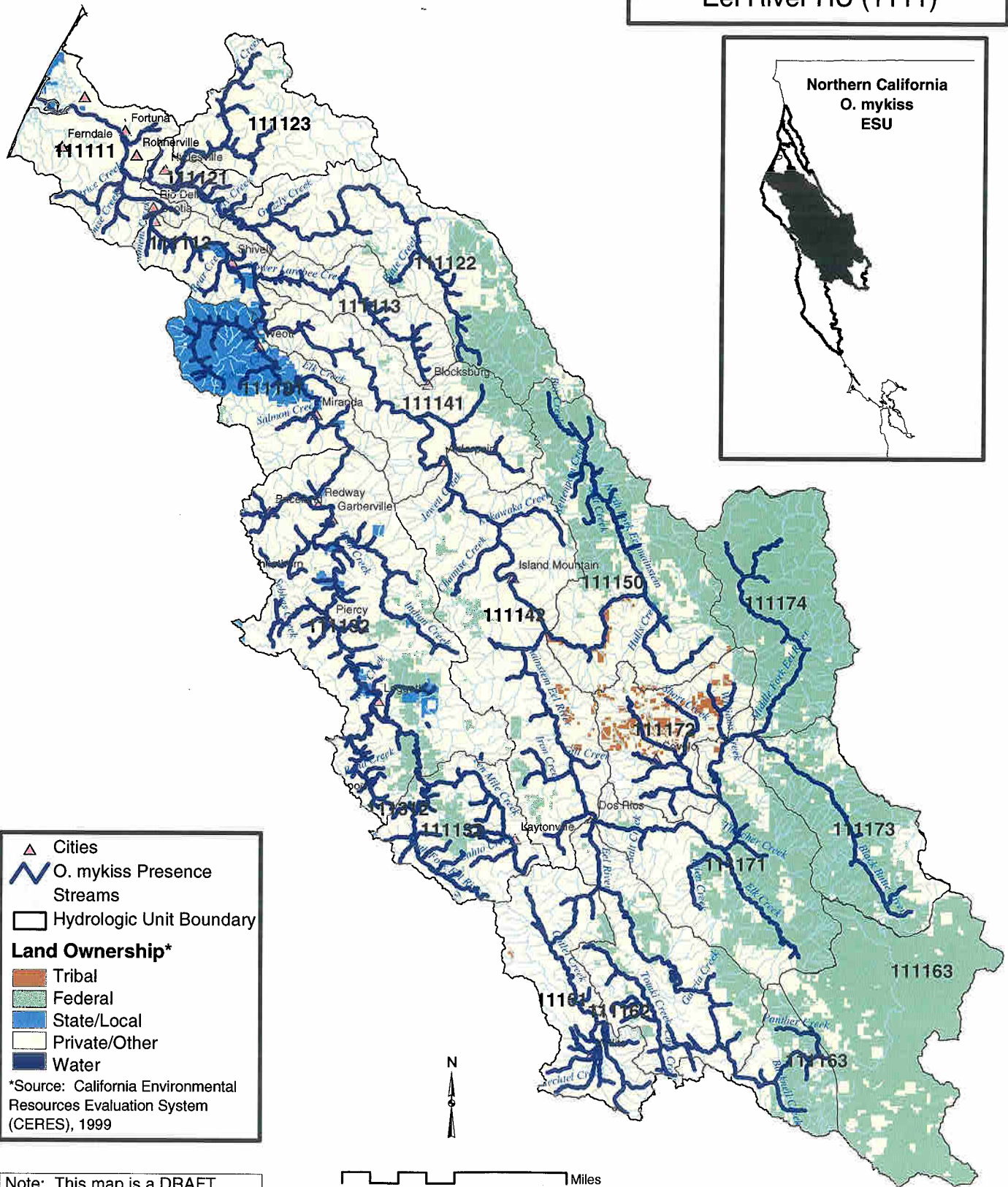
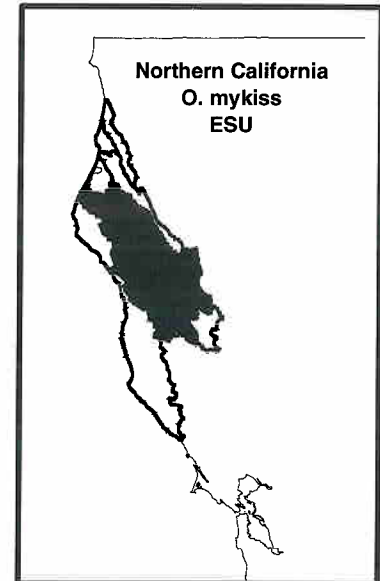
- △ Cities
  - O. mykiss Presence Streams
  - Hydrologic Unit Boundary
  - Land Ownership\***
    - Tribal
    - Federal
    - State/Local
    - Private/Other
    - Water
- \*Source: California Environmental Resources Evaluation System (CERES), 1999



0 0.5 1 2 3 4 5 Miles

Note: This map is a DRAFT product for general reference only

**DRAFT**  
**Land Ownership**  
**Northern California O. mykiss**  
**Eel River HU (1111)**

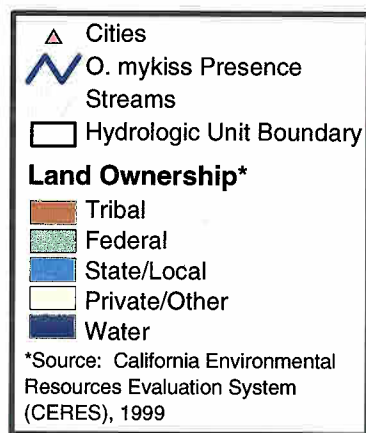


Note: This map is a DRAFT product for general reference only

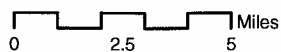
0 5 10 20 Miles



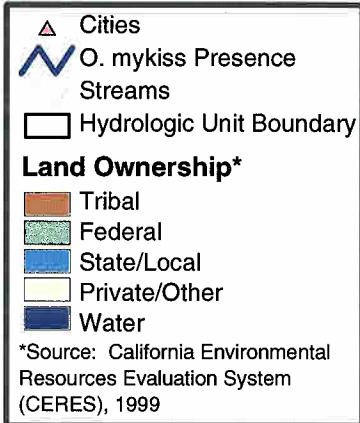
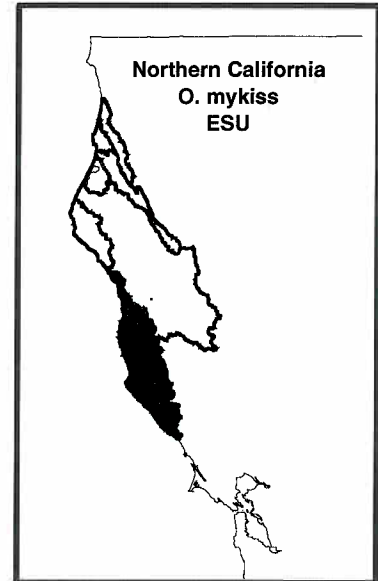
**Northern California**  
***O. mykiss***  
**ESU**



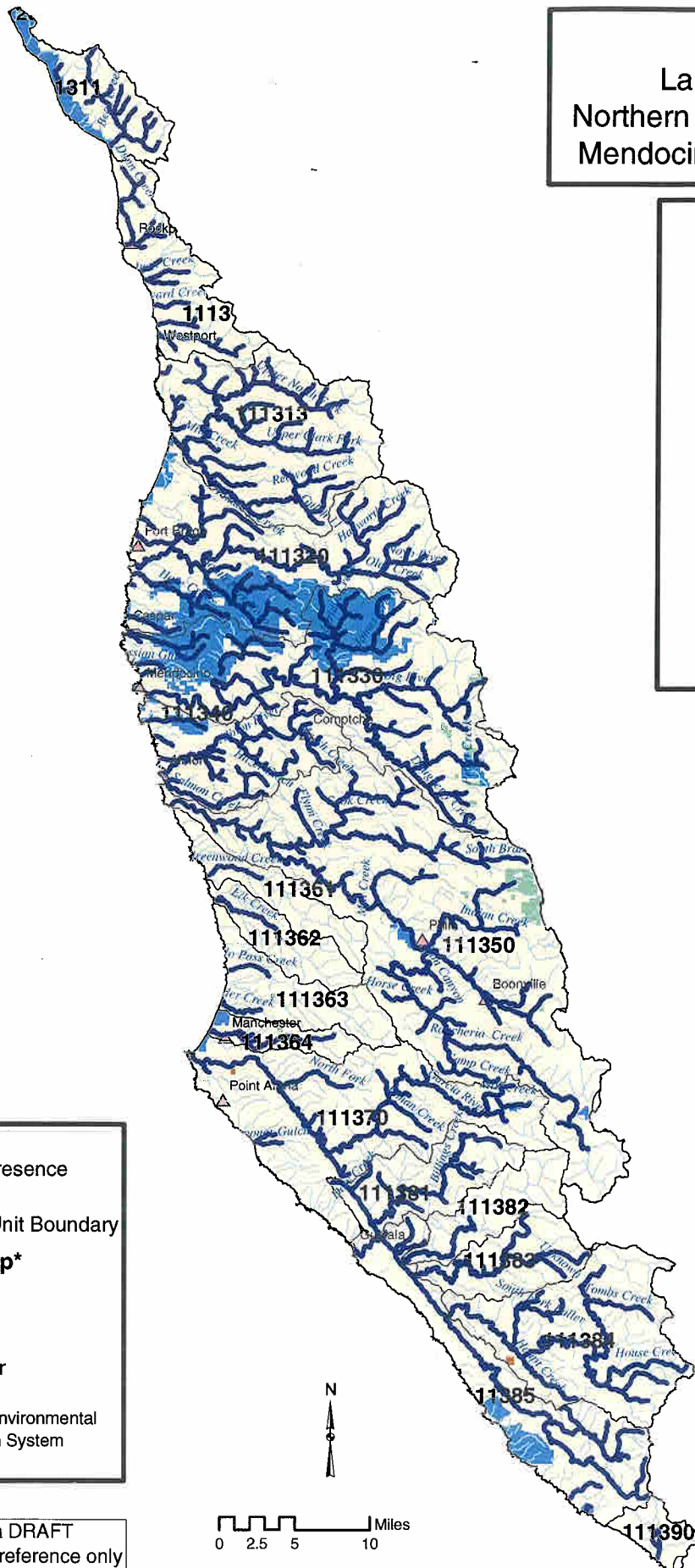
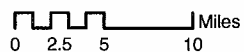
Note: This map is a DRAFT product for general reference only



**DRAFT**  
**Land Ownership**  
**Northern California O. mykiss**  
**Mendocino Coast HU (1113)**



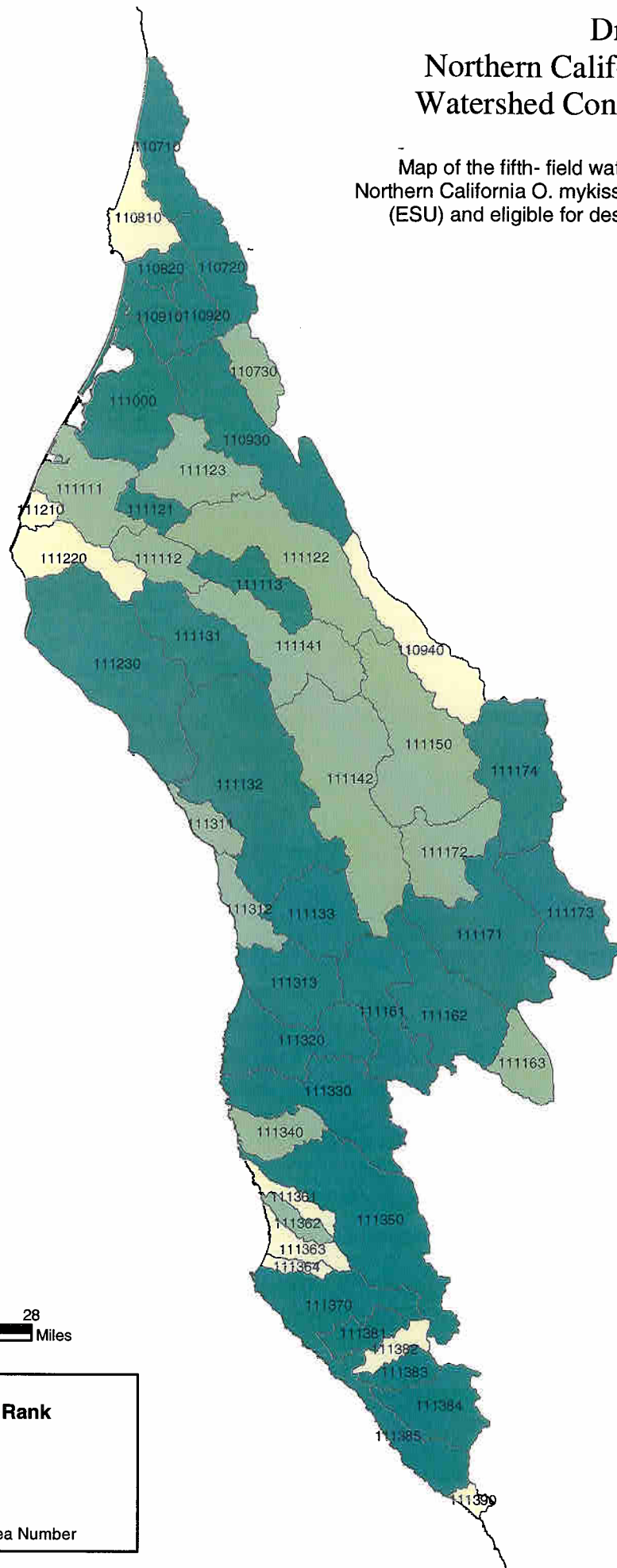
Note: This map is a DRAFT product for general reference only



Map B8. Preliminary CHART Ratings of Conservation Value for CALWATER HSA  
Watersheds occupied by the Northern California *O. mykiss* ESU

Draft  
Northern California *O. mykiss*  
Watershed Conservation Rating

Map of the fifth- field watersheds occupied by the  
Northern California *O. mykiss* Evolutionarily Significant Unit  
(ESU) and eligible for designation as critical habitat.



0 7 14 21 28  
Miles

**Hydrologic Sub- Area Rank**

- High
- Medium
- Low

110701 Hydrologic Sub-Area Number